THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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EDITORIAL NOTES.

We feel that some apology or explanation is necessary for the report of the discussion on Mr. Macgillivray's paper. The report is obtained from the official reporter of the Association, and the technicalities seem to have puzzled him. Possibly our readers may be able to gain some idea of what the various speakers said or meant, but it must be acknowledged that no one who joined in the discussion will care to acknowledge what he is reported to have said. Before the transactions of the Association are printed it is to be hoped each member will have ample time given him to revise his contribution to the discussion.

A special meeting of the Border Counties' Veterinary Association has just been held at Carlisle, on the occasion of presenting the portrait of Mr. Carlisle to the Royal College of Veterinary Surgeons. It was a most successful function, honored by a representative gathering of Veterinary Surgeons and a crowd of distinguished visitors, including the Mayor of Carlisle who made the presentation. The gift was acknowledged by Mr. Greaves, Professor Walley, and Professor McCall on behalf of the College.

Mr. Carlisle briefly returned thanks to the subscribers for their kindness, and the Secretary distributed to each one present a cabinet photograph of the octogenarian they had assembled to honour.

Mr. J. Donald, the president, occupied the chair at the meeting and at the inevitable dinner. The scientific pabulum was supplied by Professor McCall, in the form of an exhaustive paper on Tuberculosis.

Our weekly summary of the Contagious Diseases amongst animals shows, what is always more or less apparent, that glanders and farcy is practically prevalent *only in the Metropolis*. From this centre of infection it spreads to the surrounding counties, and sometimes to a distance. If London were free we should get rid of the disease. Now bearing in mind that the number of horses annually destroyed by this disease is more than enough to remount the British Army, and that every year human beings fall victims to it, we may safely say that some vigorous effort to exterminate it is advisable.

Quite recently the Privy Council have made an Order applicable only to the Metropolis—in relation to rabies in dogs. But if that disease was worthy of special notice and local action, most certainly glanders calls still more loudly for special local action.

When the Contagious Diseases (Animals) Act comes again under parliamentary notice for amendment, it is to be hoped that some pressure may be brought to bear upon our legislators to induce them to treat farcy on exactly similar lines to those applicable to glanders. We have no hesitation in saying that the chief cause of the spread of glanders is the existence of farcy, and that neither disease will be exterminated so long as the law permits the treatment of farcy.

As a tentative measure an Order in Council, if it could be issued, applying the Glanders' regulations to Farcy in the Metropolis, would be of inestimable service. After twelve months' trial it might be applied to the rest of the kingdom.

CLINICAL NOTES.

INTRA-ABDOMINAL HÆMATOMA.

By A. E. MACGILLIVRAY, M.R.C.V.S., Banff, N.B.

This is by no means an unfrequent occurrence in veterinary practice and, in so far as my experience goes, may happen in equines, bovines, or ovines, and in old and young. It is generally the result of, or caused by, accidents or operations, but at times may follow or be caused by disease of either the abdominal parietes or some of the viscera, and in either case is but too often fatal.

It is possible, but on the whole unlikely, that these intra-abdominal blood-tumours or hæmatomata may be re-absorbed; the possibility or probability of this beneficial result happening is placed beyond doubt by practical observation of what takes place in those extensive extra-abdominal hæmatomata which occur in front of the udder in cows. These latter tumours, almost always resulting from accidents, are sometimes of enormous size, appear almost instantaneously, are often taken for abdominal ruptures, but are true hæmatomata and owe their origin to the rupture of some of the large blood-vessels in or in front of the mammary region. Well, these extra-abdominal blood-tumours are often re-absorbed; I had two such cases quite lately, where the tumours were exceptionally large, and yet were both completely re-absorbed. In one case

I applied an evaporating lotion to please the owner, and in the other for a like reason I allowed bandaging.

I have often opened these outside hæmatomata, evacuated contents, washed out remaining cavity, and generally was not bothered with a recurrence; but there is a serious danger of a renewal of the causative hæmorrhage; I had a case of this sort lately in the perineal region of a cow where I evacuated the whole contents of a large hæmatoma and washed out cavity with cold water; but in two days the tumour re-appeared and was at least three times as large as at first and always increasing; so, as the cow was in prime condition, I advised slaugher.

What I wish to make out from these observations is that intra-abdominal hæmatomata may be re-absorbed, and in fact are so. The truth of this is also proved indirectly by what happens in the preliminary stages of fatal cases of this kind; as for instance in a case of intra-abdominal hæmatoma occurring after castration, as unfortunately will happen, and where by the way the presence of the hæmatoma may sometimes be verified by rectal exploration, the initiatory symptoms are alike whether the *finale* be re-absorption, bursting and consequent peritonitis, or organisation of the tumour, for in more than one case I have seen the blood-tumour after castration assume an organised appearance.

I believe this absorption or organisation of intra-abdominal hæmatoma, wherever situate, depends a good deal upon its position and surroundings, but of one thing we may be certain, namely, that these favourable results do occasionally occur. It may be remarked that these organised intra-abdominal hæmatomata are very dangerous additions to the usual abdominal contents, as they may at any time break up and burst, or get entangled among the intestines—causing at times complete occlusion of some part of the digestive canal. I have seen this *post-mortem*.

VOMITING IN A HORSE DUE TO STRANGULATED DUODENUM.

By E. Tout.
Assistant to Mr. Mulvey, F.R.C.V.S.

Vomiting in the horse is such a rare occurrence that a short report of a case may not be uninteresting to your readers. Two conditions are generally recognised in which this symptom is seen—distension, or rupture of the stomach. In most cases of gastric distension the organ is overloaded with solid food; in the case I am about to relate the distension was entirely gaseous.

The subject was a brown gelding which had been suffering for a few days from an attack of influenza, but which had so far progressed towards recovery as to be led out for exercise. On Saturday last it was exercised in the evening and was so lively as to be described as "kicking fresh." On returning to the stable it was fed as usual but had only eaten a few mouthfuls when signs of abdominal pain were noticed. A "gripe drink" was given but did not succeed in removing the pain, which, however, was not very marked. A second gripe drink was given some hours afterwards but was not successful, so assistance was sought at 2 a.m. on Sunday. I found the horse turned round in the stall and placed on the pillar-rein; the chief symptom of abdominal pain was pawing with a front foot. I noticed some frothy mucus about the mouth and once or twice an arching of the neck with a movement of the body suggestive of an attempt to vomit, or perhaps still more suggestive, of thoracic choking. I administered a draught, and had no sooner done so than a decided act of vomition occurred and food was thrown up. The pulse was 70 per minute and the maxillary artery hard and wiry.

On Sunday morning at nine o'clock I visited the horse again. The vomition had been more frequent and a large quantity of semi-digested food had been ejected. The pulse was imperceptible, and the skin covered with cold perspiration, but no violent pain was evidenced nor was the abdomen distended. I expressed an opinion that the case was hopeless, and the owner at once determined to have the horse killed.

Post-Mortem at 1 o'clock. On laying open the abdomen a portion of small intestine was at once noticed to be discolored, and strangulation was suspected. The large intestines were first carefully removed and then it was seen that the obstruction was on the left side just posterior to the stomach. Behind the obstruction the small intestine was discolored throughout nearly its whole extent. In front of it the gut was greatly distended with gas; this distended portion was about two feet long from the pyloric end of the stomach to the place where the strangulation existed. After firmly grasping the gut behind the obstruction we removed all the rest of the intestines, leaving the stomach and liver *in sitû*. It was then found that a loop of intestine had passed through an opening in the omentum and thus prevented the passage of gas from the stomach. The gaseous distension of stomach thus caused pressed upon the strangulated loop and so completely occluded it. As long as the strangulated gut was firmly grasped, the portion of intestine in front of it and the stomach remained firmly distended, but as soon as it was released they both collapsed.

Perhaps some of your readers may have seen a similar case, but to me it is unique, both in the position of the strangulation and the vomiting caused by the distension of the stomach. The very slight indications of pain and the total want of any fulness of the abdomen are also noteworthy as rendering a diagnosis very difficult.

ERGOT IN HŒMORRHAGE.

In a case reported by me in yours of June 8th occurs a singularly puzzling sentence. Kindly allow correction as follows, "The sheath was emptied of clots and then of the supernatant liquor re-

sulting from a mixture of incompatibles, viz: of two drachms Plumbi Acetatis in two ounces of water with a quart of saturated solution of Alum in water (with Aloes) there was injected as much as possible and the sheath was kept distended for twenty minutes."

The bleeding ceased—and permanently.

Is there anything published from the actual practice of veterinarians as to the value and doses of Ergot for various animals. To all appearance it may be of specific value if we have trustworthy evidence of the extent to which we may safely push the liquid extract, or other preparation.

J. Cammack, V.S., Kimberley, S. Africa.

[Messrs. Mavor strongly recommend Ergot in cases of purpura. Perhaps some of our readers may be able to supply further information.—Ed.]

VETERINARY MEDICAL SOCIETIES.

LINCOLNSHIRE VETERINARY MEDICAL ASSOCIATION.

A meeting of the above Society will be held at the "Red Lion" Hotel, Boston, on Thursday, Aug. 15th. 1889.

The President, B. Freer, Esq., M.R.C.V.S., will take the chair at 12.30 o'clock, punctually, and will deliver an inaugural address.

Thos. Greaves, Esq., F.R.C.V.S., Manchester, will read a paper on "Lameness in Horses."

Next place of meeting will be fixed.

Members are invited to exhibit any interesting pathological specimens.

Dinner at 2.30 o'clock.

Yours truly, Fred. L. Gooch, *Hon. Sec.*

YORKSHIRE VETERINARY MEDICAL SOCIETY.

The summer quarterly meeting of this Society was held in Leeds on Friday, Mr. W. Lodge, Dewsbury (president), in the chair. The Committee appointed at last meeting to consider the subject of the appointment of empirics as inspectors of meat, reported in favour of the necessity of substituting duly qualified veterinary surgeons for policemen and empirics generally, as inspectors of meat, cowsheds, and dairies. It was pointed out that an efficient inspector of meat must, *primâ facie*, be a good, comparative pathologist, and therefore the superficial knowledge of meat inspection displayed by policemen and empirics, was an item of serious danger to the public health, and not unfrequently unfair to the butcher. Only those, it was held, who had thoroughly studied the structure, composition, and general features of animals in health and in disease, by the aid of chemistry, the microscope, and other scientific methods of investigation, were competent to pronounce upon the soundness or unsoundness of flesh for human consumption. It was unanimously resolved that the report of the Committee be forwarded to the various local authorities of Yorkshire, and also to the various medical veterinary societies throughout the country. The President read a paper on 'Tuberculosis,' in the course of which he referred to a recent judicial investigation in Glasgow in the case of a seizure of alleged diseased meat, and he contended that the veterinary surgeon was more competent than the ordinary medical practitioner to give an opinion as to the soundness and fitness for human food, of the carcases of animals. He considered that in case of animals only slightly affected with tuberculosis, and in good condition, and where the lungs were the only parts affected, the flesh might be used for human food: but not so when the disease had spread to the glands in a manner which he described. He believed it was essential for the welfare of the community that cases of tuberculosis should be dealt with under the Contagious Diseases (Animals) Act. A discussion ensued upon the question of the milk supply generally, and Mr. Scriven (Tadcaster), said that domestication rendered animals more susceptible to the disease, especially when housed for long periods and fed on soft food, such as grains.

NATIONAL VETERINARY ASSOCIATION.

Discussion on Mr. Macgillivray's Paper.

Mr. Harry Olver in opening the discussion said he ought perhaps to apologise for appearing in that position to-day, and he must ask them to excuse any deficiencies on his part because he stood there simply as a stop-gap in the absence of Prof. Macqueen who ought to have opened the discussion. He (Prof. Macqueen) was however acting in a more interesting manner in taking to himself a wife, and he telegraphed to him (the speaker) asking him to open the discussion in his place. He (the speaker) was the less able to do justice to the paper from the fact that he happened to have been exceedingly busy, and until he got in the train last evening on his way there he had not looked at it. He was sorry Mr. Macgillivray was not there to answer the discussion. Before making any remarks on the paper he felt that he must say this, that it was unfortunate that they had such a wide subject to consider, because in the limited time at their disposal it was impossible fully to discuss it. It was impossible in attempting to discuss this paper to go thoroughly into one part. All of it was interesting—all of it was the writing of an eminently practical man, but still he thought it would have been better if he had treated of the diseases in one species only. Mr. Macgillivary began by speaking of simple vaginitis and balinitis and then went on to deal with another form of the same disease, namely the specific virus or to the spreading of impure vaginitis. They would all agree with the essayist that it was a very awkward disease to deal with, especially in the male animal. He (the

speaker) had seen many animals rendered useless for copulation. After speaking of vaginitis and balinitis Mr. Macgillivray went on to speak of leucorrhœa mentioning several forms of it. It would be sufficient for them if they considered the ordinary form of leucorrhœa and in doing this he would first ask what is leucorrhœa? He thought it would be generally admitted that it was a disease of the uterus due to a total or partially inflamed condition of that organ. Mr. Macgillivray went on to say that leucorrhœa produced impure vaginitis. He did not dispute this where leucorrhœa had originally been gonorrhœa, but he did not agree that leucorrhœa pure and simple would produce impure vaginitis or gonorrhœa. Gonorrhœa was generally acknowledged to be due to septic bacteria If leucorrhœa pure and simple would produce gonorrhœa then he thought there would be a greater frequency of gonorrhœa in the human species than at present existed. No doubt the virus might remain a considerable time in the smaller organs of the uterus and they would quite understand if that was so that the male animal in the act of copulation might become infected with impure vaginitis or gonorrhœa and so would transmit it to other animals, but speaking of its ordinary form he did not think it would produce the disease any other way, although no doubt Mr. Macgillivray could trace very many outbreaks to the very fact of the male animal having copulation with a female affected with leucorrhœa. He (the speaker) believed in all these cases that the animal suffering from leucorrhœa had at some time suffered from impure vaginitis. Mr. Macgillivray spoke of abortion as due to leucorrhœa. Here again he thought Mr. Macgillivray took the matter too generally. He for one would not admit that all cases of leucorrhœa would produce abortion. It was recognised now he thought that abortion was due to a specific bacillus. He could not agree that leucorrhœa in its simple form would either give impure vaginitis or that it would give abortion. In regard to abortion Mr. Macgillivray spoke of the value of antiseptics, and here he was actively in accordance with him as he had used them successfully in many cases. With regard to the disease of the urethra, Mr. Macgillivray spoke of one or two cases where he had operated successfully by opening into the bladder and inserting a tube, thus giving relief for a considerable time. One could not dispute it, but he (the speaker) could not understand how animals lived long enough for this operation to be performed. He agreed with Mr. Macgillivray that if the contents of the uterus were evacuated thoroughly and antiseptics introduced afterwards, the operation was so far successful, but his experience was that they very often got a fluid containing pus or something like pus in the uterus, and in those cases his experience taught him that the effect was fatal more often than not: where they got a pure fluid it was successful. Mr. Macgillivray spoke of disease of the ovaries—there was one disease that he could never properly diagnose and that was when they got a female animal suffering from a constant state of heat. With regard to the testicles, they all agreed that there was only one class of treatment. When they settled the presence of orchitis they could safely treat it, but there was little to guide them between the two diseases orchitis and epididymitis. Referring to the part of the essay dealing with inflammation of the kidneys Mr. Olver thought that very few of them would be able to diagnose acute gastralgia. Mr. Macgillivray wrote, "I have also seen a very startling form of anthracoid apoplectic nephritis in which the kidney or kidneys were literally engorged with disintegrated blood of a black, tarry and non-coagulable nature." Anthracoid inflammation, if the term may be allowed, of any organ is a study or problem never yet explicitly or satisfactorily worked out; it is all very good saying that a certain bacillus is the root and stem of this anthrax; but how is it generally so very quickly fatal? He (the speaker) thought the blocking up of bloodvessels in an important organ of this kind might quite account for the sudden termination of life. There were various forms of cystitic diseases, the majority of them more or less remote, in the treatment of which few of them would disagree. As to the sabulous deposits, they might give a small dose of acid, but he believed that although they might do something to prevent the accumulation of sabulous deposits, they would not be able to get dissolved what already existed in the bladder itself.

He did not know that he could go further into the essay. It seemed to him that there was so much to discuss and so impossible to go into all of it. There were twenty diseases treated of and any one in itself was quite sufficient for a meeting of this kind (hear). He was sorry that he had not been able to go better into the matter, but his excuse was that he had not had time. The subject was wide and it was impossible to deal with any part of it thoroughly. He trusted they would make up for what he had been unable to advance. (Applause).

Mr. McGavin said a great deal of the paper might be discussed with profit to the Association. There was one thing that he had not been mentioned so far as he was aware, and that was rupture of the vagina in the act of copulation. A short time ago he sent a mare to be served by a horse; after serving the mare seemed to be in great pain and ultimately died The gentleman who owned the mare sued the owner of the horse for damages for the loss of his mare on the ground that it had not been served properly. It was served per rectum instead of per vaginam.

A week ago he was called to attend a pony 12½ hands to 13 hands high. She was served by a horse 15 hands high and the same result took place—the uterus was ruptured. He was not aware that there were any cases of that kind on record, and he should be glad if any member could offer any information on the subject as to a horse serving a mare per rectum instead of per vaginam. Last year he wrote to the *Veterinary Journal* as to the retention of fœtus in an animal—perhaps some gentleman could throw light on this subject. They had seven or eight cases on one farm where the fœtus was retained from a month to six weeks longer than the natural time, and the animal had either to be destroyed or sent to the butcher. Referring again to the case of the mare above mentioned, Mr. McGavin said the horse served her six weeks previously and there

were signs of pain afterwards. He injected Morphia subcutaneously and the mare appeared to recover. He was of opinion that the uterus was only partially ruptured then. At the end of the six weeks she was served again by the same horse, and death took place the next morning. He then found that the uterus was completely ruptured into the abdominal cavity. (Mr. Walker said he should like to know the result of the action referred to.) Mr. McGavin said the jury decided against the owner of the mare, and summed it up in this manner; that if a gentleman had a valuable horse a mare might kick it, and he had that risk to run. The owner of the mare they thought should therefore run a similar risk.

Professor WILLIAMS said there were one or two points of considerable importance which Mr. Macgillivray had very lightly touched upon. The specific form of balinitis and vaginitis were of great importance. He believed that the occurrence of this disease was not at all uncommon. In cases that he had investigated very carefully this disease had been due to tuberculosis; where the tubercle first appeared he was not in a position to state, but both bulls and cows had been affected and the appearance described by Mr. Macgillivray was very close to what he met in his own experience, namely, formation of ulcers and so on, discharging yellow fluid. He had no hesitation in saying that it could be communicated from one animal to the other. Some time ago he investigated an outbreak of this disease in a short-horn herd. It was found that one of the bulls suddenly became affected with ulceration of the penis, and by-and-bye some of the cows presented symptoms of the same disease. The cows seemed to have recovered and another bull was put on to serve them, but not only was the disease re-animated in the cows, but the second bull became diseased, and the result was the whole of the herd became tuberculosed. He could not believe for one single moment that they could have the true gonorrhœa in the lower animals. He believed in the majority of cases, it was due to the common disease found in animals, viz., tuberculosis. Speaking of abortion, Professor Williams thought they were much indebted to Nocard for his investigation into these cases. They all believed that cows aborted from some mysterious influence communicated from one animal to another. Well, Nocard had demonstrated to a considerable extent that one of the great causes of this epidemic of abortion was the introduction of a specific organism from one cow to another, and their only chance of resisting it by the employment of antiseptics. The profession and the public were much indebted to Nocard for his investigation on this point. He did not think they found the true cancer in cattle. Speaking of the limb of the ovary, where the cow was always bulling, he recommended the crushing of the ovary through the rectum. The case of a short-horn cow had come before him in his practice, she was continually in this condition, and was under a celebrated cow doctor than whom a more highly respected practitioner did not exist within or without the profession. He could make nothing of her. He (the speaker) examined it very carefully and found one of the ovaries enlarged. He crushed it according to the French methods and felt it go like a collapsed egg. She kept bulling for a week or two and then gave over bulling altogether. For three or four months she never bulled. Then she bulled for three weeks. The result was she became in calf and gave birth to one. The calf died but still there was the result and he was congratulated by the owner. He thought there was something in this operation of crushing. It was not his own idea, it was simply what he had gathered from French literature. (Hear.) The essayist spoke of cystitis as more common than might at first be supposed. His (the speaker's) opinion was this, that cystitis was an exceedingly rare disease in the lower animals. It was a disease they scarcely ever met with. Certainly they did see it after the administration of some irritant remedies, but as arising from an ordinary course, he thought the disease was exceedingly rare.

Professor Williams next referred to the deposit of sabulous matter and calculi. He said he had seen many cases in horses where the bladder had been full of sabulous matter. In oxen and sheep sometimes it was as if gravel had been thrown by handfulls—it seemed to stick to the mucous membrane. Here was a practical lesson for them all. If these deposits were associated with difficulty in urination they might depend upon it there was a collection of this gravelly material in the bladder. Any acid would destroy it, but in the highly fed animal hydrochloric acid, say, would destroy their patient. If it destroyed the tissues to which it was to be applied, then he could not recommend anything of the kind. He was consulted about some sheep with this condition of bladder. They were fed upon turnips grown upon land highly manured. He recommended that fewer turnips should be given to them. What did they do? They gave less cake and more turnips. Their reasoning was not so chemical as his reasoning, but the results were far more satisfactory. They then forced the sheep to take more water. Their urine was too concentrated to hold phosphate in solution. As to sabulous matter in horses, he had pumped it out with a double action pump. He had pumped it in and out, and had had as much as would fill a pint pot. He had thoroughly washed out the bladder and used carbonate of lime. He had injected a weak solution of hydrochloric acid, but there was so much irritation that they could not continue it for more than a day or two. The injection of cold water would force and stir it up. They would always diminish the quantity, and could empty the bladder in the course of two or three weeks. This was beautiful in theory. This sabulous matter was due to a paralysed condition of the bladder. The bladder could not empty itself. It was not a difficult operation to remove the deposits, but as to dissolving with any acids certainly it was beyond his reach so far.

Mr. MACINDER spoke of vaginitis in a herd of cows belonging to a nobleman. Two he said were sent to the Royal Veterinary College. One died there and was sent back as she had tuberculosis. The whole of the lungs were unsound. There was no

lung affection when the animal was first attacked. There was no trace of tuberculosis on either side of the pedigree.

Professor EDGAR said they certainly were not in a position to grumble at the quantity of material placed at their disposal, but he certainly thought they could take exception to the quality of the matter. He regretted the author was not there because there were a few important questions that one would like to put to him. Some of the statements were really remarkable, and required taking with a grain of salt, because it seemed impossible to realise that they could be actual facts. And yet it was hard to doubt a practical man like Mr. Macgillivray. Mr. Macgillivray spoke of the excision of a malignant growth from the vagina of an animal and its growing larger than it was before. Fortunately they were not told the size of the original growth. How could they take a statement like that with any degree of seriousness. As to the cyst that Mr. Macgillivray said he saw on the side of the vagina walls in a cow, he should like to know whether he examined the contents of the cyst microscopically—it was more than probable that they were parasitic. He thoroughly endorsed the remarks as to cancer, He had never seen a case of cancer that had been diagnosed. Mr. Macgillivray spoke of the diseases of the ovaries, but he thought they were rather common than otherwise. In the first number of the *Veterinary Record* he put an interesting case of the disease in a mare, which he diagnosed per rectum during life. That case had its counterpart in the *Record* of last week, with this exception that the gentleman did not diagnose it. The ovaries on the right side of this mare was ten or eleven inches in length, sufficiently large to have caused the mare considerable inconvenience for a long time. Serious disturbance was caused in the bowels, and this was due probably to to its pressing across the colon. Mr. Macgillivray spoke of the disease as being difficult to diagnose, but he was afraid they did not always pursue the means at their command in making a diagnosis. With regard to cystitis he differed from Professor Williams with due respect. He could bring three cases of well marked cystitis, demonstrated by post-mortem as well as diagnosed during life. They were in a cow, a horse, and a colt 18 months old. Several important diseases were left out of the paper. He might say that two years ago the case of a mare came under his notice that had been served by a horse. Afterwards acute pain came on, and many feet, even yards, of the bowels protruded through the vagina. The mare died in a few hours, ruptured by the penis of a horse,

Mr. TRIGGER thought he could throw some light on the subject. He knew of a mare that was improperly served and ruptured and on investigation it was found that the groom was drunk at the time, and some other man had to attend to the service. A claim of £10 was made and the owner of the horse paid it at once. In another case a mare exhibited pain and lived only a day or two. There was no mischief on the inside of the vagina, but outside there was an accumulation of pus. No doubt in that case the rupture had taken place through the walls of the rectum. The service took place through the rectum in each case. The disease of the ovaries was commoner than they thought for and, as suggested in the paper, was difficult to diagnose. As to tumour he did not think there was reproduction within twenty-four hours. The paper was interesting, but open to a great deal of criticism.

Mr. W. HUNTING said he rose more for the purpose of asking a question than anything else. He knew nothing about these diseases. A cow was a thing he did not see except when he took railway journeys. (Laughter.) As to real contagious venereal disease he had no experience whatever of it. Nearly all of these diseases were common to old horses as Mr. Edgar had said. He himself one day found a skewer transversely fixed in the bladder. He should not have been surprised if anyone had disbelieved that statement. (Laughter.) The diagnosis of these diseases must be difficult. These animals lived for years without there being any idea of anything wrong about their urinary organs, until they appeared after death. Mr. Macgillivray refers to urinary discharge as a symptom of prostatitis. In no single case had he seen a reasonable urethral discharge. One often saw cases of what were called gonorrhœa in dogs, but they had no right to be called anything of the kind. He should be glad to know if anybody knew of a case of the contagious venereal disease known as maladie du côit.

Mr. OLVER spoke of the case of ulceration of the penis in three horses. It was not transmitted to any mare although the horses were used before they were perfectly well, but in each case when they were used they were thoroughly washed and some carbolic oil used. In the case of a cart horse that came under his notice three or four years ago, it was transmitted to several mares.

Mr. BARFORD referred to the disease being discovered in several mares that had been served by a horse. The cases were investigated when it was found that the stallion was not the offender, but a foul mare that he had previously served. His service was at once stopped, and in a short while they got perfectly well Some seasons afterwards he was used, but it never occurred again. He should like to know whether any gentleman knew of a similar instance in a carthorse.

The PRESIDENT said there was so much matter in the paper that one did not know what part to deal with. There were only one or two words he had to offer, and first with reference to sabulous matter. It was not the condition of blood, but the disease of the bladder—very likely he thought a paralysed condition of the walls of the bladder. Mr. Macgillivray seemed to speak of the discovery of calculus as rather a difficult matter. He did not wish to appear egotistical, but he could find it easily even where it was no bigger than a spanish nut. The bladder could be easily emptied. Let them pass their hand into the rectum. What had they got between their hand and the calculus? One side of the bladder and one side of the rectum. The thickness of the two structures was not more than a quarter of an inch, and the discovery of even a small calculus was very easy. There was another paragraph where he

thought Mr. Macgillivray should not have taken so much credit to himself, and that was as to the removal of a calculus seven ounces in weight. Well, that was no great feat. He thought he could remove one very much larger than that. The urethra of a mare was very easily dilated and it would not be difficult to remove one ten ounces in weight, particularly if it was ovoid in form. He recollected an extreme case which was an illustration of how easily they could overlook in the examination of a horse a very important pathological condition. He once examined a cob that belonged to a large dealer in London. It was a good-looking cob and in prime condition, and his coat was as healthy as they could imagine it. When his examination was just completed, he was looking to see what the smith was doing, when he saw a drop of water fall from his sheath on to the stones. It struck him as peculiar because it was a cold morning and no galloping had taken place. He then thought there must be something wrong with the bladder, and on making an examination he found a calculus as big as a pullet's egg. He only mentioned this to show how easy it was to overlook such an important pathological condition as he had just named. There was one other remark with reference to peritonitis. He could not agree with him, that the malady could be mistaken for any other, because the symptoms were so markedly different. For his own part he thought it was a great pity that Mr. Macgillivray instead of mentioning twenty or thirty maladies, had not humbled himself to three or four, or half-a-dozen, as then he believed they would have had a better discussion.

Professor WILLIAMS moved a vote of thank to Mr. Olver for the able manner in which he had opened the discussion. It was a pity their friend from the north had dealt with so many diseases, but he must so far defend him, that he had done his best in providing food for discussion. (Hear.) Perhaps the discussion would have been better if confined to fewer subjects. However that might be, he asked them to give a vote of thanks to Mr. Olver for so ably opening the discussion. (Applause.)

Mr. OLVER, in responding, said it was not his intention to blame Mr. Macgillivray for introducing so many diseases into his paper, he mentioned it rather that it might be avoided in future (hear). He concluded by moving a vote of thanks to Mr. Macgillivray for his paper, remarking that he deserved it more than he (the speaker) did.

Mr. WALKER seconded, and in doing so said there was certainty a large quantity of food in the paper but the quality was inferior. (No.) He (Mr. Macgillivray) however deserved their thanks.

The vote of thanks having been heartily carried, the proceedings terminated for the day.

A CURIOUS EXPERIMENT.—A somewhat funny story comes from Pardshaw, near Cockermouth. A farmer named John Waite lost a sow, and had six pigs left on his hands. About the same time the farmer's collie bitch had pups, which were all drowned by the owner. The bitch became uneasy, and Mr. Waite tried the experiment of allowing her to suckle the pigs. It is said that both the bitch and the pigs took to it naturally.

GOVERNMENT VETY. DEPARTMENT.

CONTAGIOUS DISEASES IN ANIMALS.

Reported in Great Britain and Ireland during the week ended July 27th, 1889.

Pleuro-pneumonia.—There were 7 fresh outbreaks of this disease reported in Great Britain during the week, 3 of them in England, in the counties of Kent, Sussex (East), and York (W.R.): Of the 4 in Scotland, 3 were in Fife and 1 in Forfar. The total number of cattle attacked was 12, viz., 5 in England and 7 in Scotland. In addition to the above, 216 healthy cattle in contact were slaughtered: of these 69 were in England and 147 in Scotland, In Ireland no fresh cases of this disease were reported during the week, neither were any healthy cattle exposed to infection slaughtered.

Anthrax.—In England 4 fresh outbreaks of anthrax were reported in the counties of Lincoln (Lindsey), Somerset, Suffolk and York (W.R.). The number of animals attacked was 96, this large number of attacks is due to an outbreak among a herd of deer in which 92 were returned as diseased. No cases of anthrax were reported during the week in either Scotland, Wales, or Ireland.

Swine-Fever.—During the week 114 fresh outbreaks of swine-fever were reported in Great Britain, 111 of which were in England, 2 in Wales, and 1 in Scotland. The total number of pigs attacked amounted to 456; 224 diseased pigs were killed, 207 died, 50 recovered, and 438 remained alive when the return was made up. In Ireland 7 fresh outbreaks of swine-fever were reported and 23 swine attacked.

Glanders and Farcy.—In England 12 fresh outbreaks of glanders were reported, 1 in Kent, 10 in London, and 1 in Middlesex; 21 horses were attacked, 1 in Kent, 16 in London, 1 in Middlesex, and 3 in Lanarkshire, in Scotland. In London there were 11 outbreaks of farcy and 23 horses attacked; other parts of Great Britain were free. In Ireland 1 fresh outbreak of glanders was reported, in which 1 horse was affected in County Tyrone.

Rabies.—Altogether 8 cases of rabies were reported in England during the week, they occurred in Lancashire, Lincoln (Kesteven), London, Middlesex, Surrey, and York (W.R.). There were 9 cases of rabies in Ireland during the week, in the counties of Fermanagh, Tyrone, Cork, Kerry, Longford, Galway, and Mayo.

EXTRACTS.

A HORSE CASE.

THE MOST REV. DR. O'DWYER *v.* THOMAS DONOVAN.

This was an action brought by the Most Rev. Edward Thomas O'Dwyer, Bishop of Limerick, against Mr. Thomas Donovan, a well-known horse

dealer in the city of Cork, to recover £95, money alleged to have been received by the defendant from the plaintiff by fraudulently representing that a certain horse sold by the plaintiff to the defendant had suddenly dropped dead without any apparent cause except heart disease, and that the fact of the horse afterwards having been dissected and found to have died of heart disease induced the plaintiff to return a sum of £95, being the amount which had been paid for the horse, and that the defendant made these representations knowing that the death of the horse was due to over exercise and ill-usage. The plaintiff also sought £150 damages.

The defendant pleaded that the representations made by him were true in substance and in fact, and that he had reasonable ground for making such representations.

Mr. John Roche, Q.C., Mr. D. B. Sullivan, Q.C., appeared on behalf of the plaintiff.

Mr. John Atkinson, Q.C., Mr. George Wright, Q.C., appeared for the defendant.

Mr. ROCHE, in stating the case for the plaintiff, said that his client had sold the horse to the defendant on the understanding that he had never been trained to hunt or jump. On January 29 the horse was lent by Donovan to a Mr. Phelan, V.S., who took him to a meet near Ballea, and rode half a mile cross country after a fox, clearing several ditches on the route. The horse jumped in an awkward style and was reduced to a most exhausted condition, subsequently falling dead in a dyke. The defendant then wrote a letter to the bishop saying that the horse while in a sound condition dropped dead from heart disease, and in the letter there was not a word about the hunt. The bishop forwarded a cheque for the amount received for the animal to Donovan, a proceeding which excited the surprise of of a gentleman named Delmege, who, having been present at the hunt, was acquainted with the true circumstances of the case.

Mr. JAMES O'GRADY DELMEGE, Castlepark, Limerick, was next examined. He stated that he occasionally hunted with the South Unions, and was with them on the Tuesday in question. He saw the horse fall twice, and collide with another horse.

Dr. CARROLL said he saw the horse fall under Phelan. He did not see the horse illused by Phelan. Afterwards on the road Donovan said to Phelan "I am afraid the horse has congestion of the lungs," and Phelan replied "I am afraid he has. That's what's killing him." He believed that the fatigue of overriding was the cause of the horse's death.

Mr. JOHN FREEMAN, veterinary surgeon, Dublin, examined by Mr. Sullivan, stated that he had heard the evidence given. An untrained hunter, in his opinion, could not have been put through the work described. He heard the symptoms described, and his opinion would be that the cause of death was congestion of the lungs. That would be the result of overwork or exhaustion.

THE MOST REV. Dr. O'DWYER was then called and examined by Mr. Roche. He stated that defendant in Limerick asked him to sell the horse which is the cause of the present action.

Then did you consent to sell the horse? Yes, I had the horse for ten years and a half, or something better, and while he was in my possession he was never hunted. I used him altogether as a carriage horse.

What was the first communication you had with the defendant after the sale of the horse? A letter sending me a cheque for the price of the horse and asking what luckpenny I would give. I directed my secretary, Father Murphy, to write an acknowledgment of the amount, £100, and to send Mr. Donovan back £5. I afterwards got a reply to that, through Father Murphy, but the letter cannot be found after a most careful search. In it Mr. Donovan thanked Father Murphy for the £5, which he said was a very liberal luckpenny. He added he was sorry to say that he had lent the horse to Mr. Phelan the previous Tuesday to go to see the hunt, and that he was coming home when the horse dropped dead from disease of the heart.

And you believed the statements in that letter saying that the horse dropped dead of heart disease, and that when dissected the cause of death was found to be heart disease? Entirely, and in consequence I wrote to Mr. Donovan and sent him a cheque for the amount I had received from him, £95. In reply to that I received another letter. It thanked me for the money, and in it Mr. Donovan said he had no claim to it, and would return it only for fear of insulting me.

After receiving that letter did anything come to your knowledge about the circumstances under which this horse died? In the course of the following week I heard a rumour in the city about the matter, and one of my servants told me something about it, he having heard it when in conversation with some other servants. I told Father M'Namara in consequence of what I had heard and seen to write to Mr. Donovan demanding a repayment of the money.

The case for the plaintiff then closed.

Mr. ATKINSON then asked his lordship to direct the jury that there was no evidence that at the time defendant made the depositions he knew them to be false, that there was no evidence that he made the representation fraudulently for the purpose of inducing the plaintiff to return the money.

His Lordship—I will take the requisitions, but at this stage I will not direct the jury.

Mr. ATKINSON then proceeded to address the jury for the defendant, who, he said, was a native of their town, who had lived long there. No matter how unreasonable Donovan's opinion might be that the horse died of heart disease, if he honestly entertained that opinion, and stated it to the bishop, then the plaintiff would not be entitled to succeed. As far as the money was concerned, it was not of much importance to either of the parties, but unfortunately it was mixed up with a charge of swindling against Mr. Donovan, and that charge Mr. Donovan would not submit to.

Mr. THOMAS DONOVAN, deposed that he had been a dealer in horses as long as he could recollect. He did not know a better rider that Mr. Phelan. He did not misuse the horse during the day. The horse

showed no signs of being cruelly used, and went as well as the other horses. At the top of the hill Mr. Phelan shouted to hold hard, his horse was done. His horse appeared to have come to a sudden stand, and he got off. The animal was trembling, and witness left for the city for a float to bring in the animal. The horse was brought in dead. Mr. Phelan told him that the horse when he left him on the road, was dying of heart disease. He had a conversation with Phelan next morning. Phelan, who was a veterinary surgeon, said he was going to make a *post-mortem* examination of the horse, and witness said not to bother.

Mr. George Phelan, V.S., examined by Mr. Wright, stated that he rode the horse that day. The horse fell on its nose once and at a boreen another horse hit him, and he fell on the way home. The horse suddenly stopped and trembled. He dismounted, and called back Mr. Donovan and Mr. Nash. The pulse was very irregular and intermittent. The animal stood "all abroad" as a horse going to die would. Dr. Crofts came up and he told Dr. Crofts the horse had heart disease and that he was going to die. It was his deliberate opinion that the horse died of heart disease. He could not have died of congestion of the lungs. Dr. Crofts agreed with him that the horse died of heart disease, and he never said to Dr. Crofts that the horse died of congestion.

Cross-examined by Mr. Roche—A horse with a heart twice the ordinary size, and covered with a fatty bordering, may be passed by a vet. and ridden by a professional man all day without having the least idea that he had heart disease. A veterinary surgeon would often pass a horse whose heart was unduly large and surrounded by fatty substance. It was not possible that this horse had congestion of the lungs.

Captain Noble Johnson was next examined. Witness asked Mr. Phelan what was wrong with the horse, and he said his heart was done. He made no remark about congestion of the lungs. Witness then asked Dr. Crofts what was the matter with the animal, and he said he was suffering from congestion of the lungs, heart disease, and laminitis.

Mr. Burns, an employé of Mr. Donovan as kennel huntsman, in reply to Mr. Wright, stated that he had over 30 years' experience as field huntsman. He cut up the horse in question, and found that his heart was more enlarged than the heart of any horse he had opened for years. There was a fatty substance of a yellow colour about the heart. The natural colour of a heart is red. He found the right lung coloured black, but that colour may have been given to it because of the horse lying on that side. The kidneys were black.

His Lordship then proceeded to charge the jury. Having carefully gone over the evidence, he left it to the jury to deal with the facts of the case. A very important question would be determined as to whether, if fraud did not exist, there was still power to recover the money. The questions the jury had to answer were—1st, were the statements in the defendant's letter of the 3rd Feb., 1889, true in fact? He did not refer to such a matter as that the horse was lent, but as to the description of the circumstances under which the animal met its death. 2nd, if they should be of opinion that the contents of the letter were not true then did the defendant at the time of writing the letter know that they were not true? and in that connection the jury should remember the opportunities he had of observation on the day in question. 3rd, Had the defendant at that time reasonable grounds for believing that statement to be true? 4th, Did the defendant as a matter of fact believe that they were true? 5th, Did the defendant write the letter with the intention of inducing the plaintiff to return the price of the horse or part of it? 6th, Was the plaintiff induced by that letter to return the price of the horse to the defendant? 7th, What was the cause of the horse's death? 8th, Did the plaintiff when he returned the price of the horse do so in ignorance of the cause of the horse's death?

The jury retired at five minutes past six, and after an absence of an hour and three-quarters returned into court. The issue paper having been handed to his lordship.

The Foreman said they were agreed as to all the questions except number seven.

His Lordship then read the replies of the jury as follows:—2. He did not know they were not true. 3. Yes. 4. Yes. 5. No. 6. Yes. 7. Not agreed. 8. The money was returned by the plaintiff believing that the horse died from heart disease.

The jury then retired, and after a brief absence returned.

The Foreman said the letter did not state that the horse had been hunting, and they considered that a material omission.

The jury having withdrawn by direction of his lordship, a discussion arose as to the wording of the letter, and the jury found that the letter stated that the defendant lent the horse to Mr. Phelan to ride with or hunt with the hounds.

His Lordship—Let the defendant pay the jury, as I see my way to a verdict for the defendant on part of the causes of action.

Mr. Wright asked his lordship to enter a verdict for the defendant on all the causes of action.

Mr. Roche applied that judgment should be entered for the plaintiff on the count of the money having been paid.

His Lordship—I leave the parties respectively to move for such judgment as they may be advised, and extend the time for proving to the fifth day of next sitting.

ANTHRAX IN SWINE.

(An abstract of Professor Crookshank's Report to the Agricultural Department).

The occurrence of anthrax in swine is a subject upon which there has long been considerable diversity of opinion. Some of the earliest writers on the diseases of animals speak of outbreaks of anthrax among swine, but whether any, or all of these outbreaks were examples of true anthrax, has

long been a matter of uncertainty, for it is well known that diseases quite distinct were included under the name *anthrax;* and many authorities at the present time still maintain that the disease produced by the anthrax bacillus cannot be communicated to swine.

In this country Simonds states that pigs and dogs died very rapidly after feeding on the flesh of sheep which had perished from braxy, and Gamgee, and other writers, make similar statements. There are also accounts of a fatal disease in pigs induced by eating the flesh of animals which had died of what was described as "blood-poisoning." I propose to refer at some length to the history of these outbreaks, for regarding them in the light of our present knowledge, there can be very little doubt from all the circumstances of the case that the disease was anthrax. [A number of outbreaks are then detailed.]

But the question arose whether the disease in the pigs was anthrax or septic poisoning. I have already pointed out some of the conflicting opinions which had long been held.

In the most recent veterinary text-books there is either a tendency to fail to recognise the disease as anthrax, or to refrain from expressing an opinion.

In the face of these conflicting statements I was requested by Professor Brown to carry out experiments in order to ascertain the nature of the disease in swine resulting from the ingestion of the offal of animals which had died of anthrax. I undertook therefore, as opportunity arose, to watch the result of the ingestion of anthrax offal, and of ordinary putrid offal; and also to ascertain the result of inoculation, with blood of animals which had died of anthrax, and with pure cultivations of the *bacillus anthracis*.

Experiment (a) consisted in mixing the spleen and other viscera of a bullock which had died of anthrax with the food of two pigs. One pig died in five days and the other was killed on the seventh day. Both pigs afforded evidence during life or after death of virulent disease, the blood containing numbers of septic bacilli and micrococci. In both, the tonsils were affected—in one case gangrenous, in the other ulcerated. The pig that was killed showed no marked deviation from health in the appearance of the viscera.

So far these experiments fulfilled the first stage of the inquiry. Ingestion by pigs of the offal of animals which had died of anthrax was shown to result in a fatal disease. This disease was marked by ulceration of the tonsils, passing in one case into gangrene, rapid rise of temperature, and a characteristic enlargement around the throat from œdema of the subcutaneous tissue. This condition was accompanied by diarrhœa, loss of power over the extremities, refusal of food, general weakness, and resulted in one case in death in five days.

These experiments clearly indicate that there must have been some fallacy in the experiments of Barthelemy and Renault, who satisfied themselves that the pig may eat anthrax flesh without danger. Nor were the results, if regarded as anthrax, in accordance with the view of Roche-Lubin. It seems probable that these experimenters must have employed the flesh and virus of a disease which was not true anthrax.

It will be observed that in the fatal case the characteristic *post-mortem* appearance of splenic apoplexy in cattle, viz., enlargement of the spleen, was absent. Further, anthrax bacilli were not detected in the blood. If previously present they had probably given way to septic bacteria, which were found in large numbers. And owing to the time which had elapsed after the death of the animal, it was difficult to say whether the septic organisms had gained access by the lesion of the tonsils during life, or were the result of *post-mortem* decomposition.

It was resolved to repeat the experiments with anthrax offal when an opportunity arose, with a view to isolating the anthrax bacillus; if the specific virus of the disease in cattle could be isolated from pigs in which fatal results had been induced by ingestion of anthrax offal, it is obvious that considerable light would be thrown upon the nature of this malady in swine. In the meantime experiments were conducted with the use of ordinary putrid material; for if the disease in the pigs in the previous cases resulted from septic poisoning, it is obvious that similar results might be expected to follow the ingestion of material in an advanced state of putrefaction. If, on the other hand, the results were negative, it would point to the disease in the pig being dependent, not upon any merely septic condition, but upon the presence of the specific virus of anthrax. Pigs, as is well known, readily consume offal of every description, but it was necessary to ascertain the result of ingestion in material in a highly septic state. It is not necessary to go into details, but suffice it to say that pigs were fed with the spleen and blood of a healthy bullock, which had been set aside until thoroughly offensive. Further, the organs of animals dying from various causes were allowed to putrefy, and thrown to them from time to time, and the gangrenous udder and septic viscera of sheep were consumed with avidity. In all cases the results were negative, and the conclusion was arrived at, that the condition of the pig resulted alone from administration of the virus of anthrax.

April 19th, 1888.—Anthrax was reported to the Agricultural Department of the Privy Council, and the spleen of a bullock was forwarded to me by Professor Brown. On examination I found typical anthrax bacilli, and I resolved to utilise this material for comparing the result of subcutaneous injection of anthrax blood, with the previous result of ingestion of anthrax offal.

The spleen cut up into small pieces was mixed with about an equal quantity in bulk of sterilised broth, and pounded up in a mortar. The liquid portion was poured off, and employed for injection. With this mixture five pigs about four months old were inoculated.

If the blood of the spleen of a bullock be not utilised for experiment until some days after the death of the animal it is obvious that there is a possibility of introducing several species of septic organisms, which might either destroy the anthrax bacilli or supersede them after the former had produced their effect. The next series of experiments

therefore consisted in injecting the blood of an animal recently killed by anthrax.

From the blood of these pigs cover-glass preparations were made, and in all typical anthrax bacilli were detected in the heart and spleen, together with a large number of small bacteria.

Having shown that ingestion of anthrax offal and inoculation of anthrax blood produced similar lesions, it now became necessary to ascertain whether these results were to be attributed solely to the anthrax bacillus; in other words, would this micro-organism isolated from the blood and cultivated artificially in a pure state produce similar results on inoculation. With a view to ascertaining this, cultivations on nutrient agar-agar were prepared from the spleen of a guinea-pig which had succumbed to the disease. The cultivations were placed in the incubator, and when in the course of a few days sufficient growth had formed, the viscous mass was removed by means of a sterilised platinum-wire flattened out at the extremety in the form of a spatula. The cultivation was stirred up with a small quantity of sterilised broth, and the mixture injected subcutaneously with the hypodermic syringe.

The production of the same disease with the cultivated organism which had previously resulted from ingestion of anthrax offal and inoculation of anthrax blood conclusively established the fact that the disease under investigation was anthrax, and afforded a further corroboration of the pathogenic properties of the anthrax bacillus. And these conclusions were confirmed by an outbreak in swine on a farm in Hertfordshire.

This outbreak also occurred in the practice of Mr. Wilson, of Berkhampstead, who kindly telegraphed to me offering an opportunity of investigating the cases. On May 13, 1888, the cowman's attention was attracted to one of the bullocks, which appeared to "have something wrong with him," and in the evening it was found that this bullock had not eaten during the day. The following morning the animal was found dead with blood issuing with the fæces. The farmer, attributing death to over-feeding, sent for the butcher to dress the bullock. The hide and carcase were taken away; but the spleen, which was of enormous size and very rotten, was thrown, together with other viscera, to the pigs. Six pigs in all died, and one recovered. Of the six, one was a sow with a litter of ten pigs. It is an interesting fact that these young pigs, about eight weeks old, not only were suckled during the attack, but were found sucking their mother after her death; all, however, were free from symptoms of any kind.

The butcher was reported to have inoculated himself, and to be lying seriously ill. Both the sows, which were found dead on my arrival, were from five to six years old. In one, a white sow, the spleen was not markedly enlarged for a sow of that age, but it was deeply congested, and easily torn. In the other, a black sow, the spleen was very considerably enlarged, and presented a most characteristic appearance. In both sows the tonsils were ulcerated. Having taken portions of the internal organs and the entire spleen, I returned without loss of time to the laboratory to make microscopial examinations and inoculations. The blood of the heart and spleen was found in both cases to contain anthrax bacilli, but in very scanty numbers.

The bacilli were found in the spleen, and in sections of the tonsil they were present in considerable numbers. Inoculation experiments with the blood of the spleen from both sows conclusively showed the nature of the disease. From the black sow inoculations were made with a trace of the spleen juice in two guinea-pigs and two mice, and they all died of virulent anthrax on May 21st.

I may sum up the results of these experiments as follows:—

(*a*) I have produced anthrax in swine by feeding them with anthrax offal.

(*b*) I have communicated anthrax to swine by injection of blood of a bullock which had died of the disease.

(*c*) I have passed anthrax through the guinea-pig, and transmitted it to swine by injection of blood from the spleen, thus confirming M. Peuch's experiments.

(*d*) I have also been able to confirm M. Peuch's experiments by producing anthrax in swine by injecting a *pure cultivation* of the anthrax bacillus.

(*e*) I have isolated the anthrax bacillus from swine in which the disease was accidently induced on a farm, and I have reproduced the disease by inoculation of guinea-pigs and mice with blood from the spleen.

NOTES AND NEWS.

The Pasteur Method.

Six patients from England are in attendance under the charge of Dr. Hime, as three out of four who were bitten in or near Bradford on July 17th. All these three are dangerously bitten, two badly on the hands, one on the knee and buttock. The dog travelled from Bradford to Keighley, nearly fourteen miles, and on his return journey bit a cow. The dog was at length killed, and its body unfortunately thrown down a disused coal pit, past hope of recovery.—*Brit. Med. Journal.*

Sir,—From the account of the case of death by hydrophobia of Henri Moons in your last, it would seem as though the bite had been inflicted, the Pasteurian inoculations performed, and the death taken place all this year. But it was not so. Moons was bitten on March 2, 1887, was treated at the Pasteur Institute from March 17 to April 2, 1887, and died of paralytic rabies on May 17, 1889. Thus two years and two months elapsed between the bite and the death from rabies. It is therefore hardly safe to claim as successful in preventing death from rabies cases which have been inoculated within two years. In the other case, that of Mrs. Maillot, all the conditions said to be necessary to secure success were complied with, and yet death ensued. I make no comment. R. E. D. [*in the Field.*]

July 22.

The *Petit Moniteur* of July 18th reports that about fifty days ago a lad of thirteen named Louis Trottet, living with his parents in the Rue Dumèril, was severely bitten on the leg by a rabid dog. The wound was cauterised almost immediately after the accident, and the patient was taken to the Pasteur Institute, where he was submitted to the usual treatment. On the 15th, the patient having till then felt quite well, was suddenly seized with symptoms of hydrophobia. The doctor who saw the patient in the first instance was again called in, and he sent the patient to the Pitié Hospital, where he died in a few hours. This report is confirmed by the *Semaine Médicale* of July 24th.—*Lancet.*

"Strong Prejudice."

Mr. Edward Jessop, M.R.C.S., in a letter to the *Spectator* relates a case of a dog of his bitten by "a dog with every appearance of rabies" which had also bitten other dogs, a woman, and a boy. His dog "died of typical rabies" on the fourteenth day after being bitten; the other animals were destroyed but the two people were taken to Pasteur, treated, and are now (eighteen months afterwards) in perfect health.

To this the Editor of the *Spectator* adds a note, thus:—

"[Surely the cases are very numerous in which the virus of rabies has lain dormant much longer than a year and a half.]"

This note has drawn the Editor of *The British Medical Journal*, who comments:—

"So that the tender mercies of this most humane and kindhearted of zoophilists are so far perverted by the strong prejudice which he entertains on the subject of the advance of scientific knowledge and healing power by experiments on animals, that, when driven from any other position, he comforts himself by publicly suggesting that possibly Mr. Jessop's patients may yet die of hydrophobia. Happily there is not the slightest possible ground for this painful suggestion, and it is one which, to say the least, is in such cases gratuitously cruel, since the final suggestion which he makes is one which has no accepted scientific basis, is contrary to all experience, and tends to keep alive in the minds of those who have been definitely cured a most agonising but unreasonable feeling of suspense."

We fear that in the face of the two notes above from *The Field* and *The Lancet*, it is by no means clear where the "strong prejudice" is to be looked for.

Baltimore University School of Veterinary Science.

We have just received what is apparently the first prospectus of this new veterinary school. The session commences in October and ends in March. The whole course of study extends over three years and an examination has to be passed, as with us, at the end of each session. Upon passing the final examination the graduate will be entitled to the "diploma of Doctor of Veterinary Science," conferred by the University of Baltimore.

"It is," we are told, "the intention of the faculty to make the school one of the best in the country" and "to make the teaching thorough in every particular."

The professional staff includes:—

Professor Robert Ward, F.R.C.V.S.
Professor W. H. Wray, D.V.S.
Professor G. C. Faville, B.Sc., D.V.S.

and a number of medical men.

Dr. Ward was a well-known practitioner in London a few years ago and one of the first to take the degree of Fellow. As a veterinary writer he will be best remembered for his articles on numerous professional topics under the signature of "Artemus Secundus."

On Thinking for Ourselves.

"A Superior Person," writing to the *St. James' Gazette*, says:—

My belief is we have lost the power of thinking for ourselves. Why, we cannot even originate our own likings and dislikings. Somebody, more adventurous than the crowd, starts a theory, writes something up or somebody down, and the rest of us are so glad to be saved the trouble of making up our own minds, that we accept the judgment of a person whom we do not know on a matter which he does not understand. Most of the mischief is due to the newspapers. They make everything seem so easy to understand that the reasoning powers fade away for want of exercise. The news of the day and the comments upon it are flashed about the whole country so rapidly that we all form our opinions at once—and pretty opinions they are, some of them. We are all like a crowd of gaping noodles gathered round an orator on a tub. We swallow everything that we are told and believe it—until somebody else tells us something different. Once upon a time there was a divison between Town and Country: Town despised Country, and Country suspected Town. But now we are all alike, wherever we may be living; we are hearing the same things, reading the same things, thinking the same things, and being fooled and cajoled by the same public tricksters.

[This is of course quite inapplicable to the members of our profession.—Ed.]

CORRESPONDENCE.

COW POX.

Sir,

Will you kindly give your opinion in the *Veterinary Record* for this week, as to treatment for a cow with cow-pox. All her teats are in a very bad state and she is almost constantly rubbing herself, when she can get near anything to rub against; perhaps you will kindly say what application and medicine you would suggest, I shall be obliged for the opinion of any M.R.C.V.S. in *The Veterinary Record* for next week as to treatment, &c., for such cases.

Yours truly, A Subscriber.

[We should think treatment ought to be the same as for sores due to any other cause. A saturated solution of Boracic Acid in water with a little glycerine might be tried as a lotion.—Ed.]